5

Abstract

A soy-based polyol is mixed with an isocyanate and aggregate to produce a soy-based polyurethane having superior mechanical properties. The aggregate composition may be varied to obtain different mechanical properties, as can the amount of resin. The resin may be crosslinked using a low molecular weight polyol, such as glycerine, to also improve structural performance. A catalyst may be added to accelerate curing time without reducing structural performance.